

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2004-NM-14-AD; Amendment 39-13484; AD 2004-02-51]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-135 and -145 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This document publishes in the Federal Register an amendment adopting airworthiness directive (AD) 2004-02-51 that was sent previously to all known U.S. owners and operators of EMBRAER Model EMB-135 and -145 series airplanes by individual notices. This AD requires a one-time inspection of the aft rudder control rods to detect any discrepancy; a one-time inspection to determine if Access Panel 312AR is installed, and a revision to the Configuration Deviation List to remove any reference to Access Panel 312AR (thus prohibiting operation without that access panel installed); and further investigative and corrective actions, if necessary. The actions specified by this AD are intended to detect and correct failure of the control rods for the aft rudder, which could result in loss of control of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective February 23, 2004, to all persons except those persons to whom it was made immediately effective by emergency AD 2004-02-51, issued January 23, 2004, which contained the requirements of this amendment.

The incorporation by reference of a certain publication listed in the regulations is approved by the Director of the Federal Register as of February 23, 2004.

Comments for inclusion in the Rules Docket must be received on or before March 19, 2004.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2004-NM-14-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2004-NM-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The applicable service information may be obtained from Empresa Brasileira de Aeronautica S.A. (EMBRAER), P.O. Box 343–CEP 12.225, Sao Jose dos Campos–SP, Brazil. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Robert Breneman, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1263; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION: On January 23, 2004, the FAA issued emergency AD 2004-02-51, which is applicable to all EMBRAER Model EMB-135 and -145 series airplanes.

Background

The FAA has received a report that the flightcrew of an EMBRAER Model EMB-135 series airplane experienced rudder control difficulties during takeoff. The airplane made an emergency landing; no injuries were reported. Investigation revealed that the upper and lower control rods for the aft rudder section had failed. (The rudder is composed of a forward and an aft section.) The National Transportation Safety Board is currently investigating the cause of the control rod failure. The airplane on which the incident occurred had accumulated 6,804 total flight hours and 6,371 total flight cycles. Although the effect is unknown at this time, the airplane was operating without Access Panel 312AR, as allowed by the Configuration Deviation List (CDL). Failure of these control rods, if not corrected, could result in loss of rudder control, or a possible rudder jam. Also, an unrestrained aft rudder could enter a flutter mode, which could result in loss of control of the airplane.

The rudder control rods on all EMBRAER Model EMB-135 and -145 series airplanes are identical to those on the affected Model EMB-135 airplane. Therefore, all of these airplanes may be subject to the same unsafe condition.

Explanation of Relevant Service Information

EMBRAER has issued Alert Service Bulletin 145-27-A105, dated January 23, 2004, which describes procedures for:

- A one-time visual inspection, including measurement, of the aft rudder control rods to determine if they are assembled correctly and to detect signs of structural damage, cracks, pitting, or deformation.
- If any discrepancy is found, replacement of the control rods with new rods, accomplishment of a backlash test to determine the condition of the rudder bearings, and accomplishment of any related applicable corrective action.

The service bulletin also recommends that any airplane without Access Panel 312AR installed should have the panel reinstalled.

The Departamento de Aviacao Civil (DAC), which is the airworthiness authority for Brazil, classified this service bulletin as mandatory and issued Brazilian emergency airworthiness directive 2004-01-07, dated January 23, 2004, to ensure the continued airworthiness of these airplanes in Brazil.

FAA's Conclusions

These airplane models are manufactured in Brazil and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the DAC has kept the FAA informed of the situation described above. The FAA has examined the findings of the DAC, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Explanation of the Requirements of the Rule

Since the unsafe condition described is likely to exist or develop on other airplanes of the same type design registered in the United States, the FAA issued emergency AD 2004-02-51 to detect and correct failure of the control rods for the aft rudder, which could result in loss of control of the airplane. The AD requires accomplishment of the following actions per the service bulletin described previously (except as discussed below under the heading "Difference Between This AD and the Service Bulletin"):

- A one-time general visual inspection of the aft rudder control rods to detect any discrepancy (including, but not limited to, incorrect installation, corrosion pitting, cracking, looseness, deformity, or structural damage).
- If any discrepancy is found, replacement of the affected aft rudder control rod with a new or serviceable control rod, accomplishment of a backlash test (to detect worn rudder bearings) and any applicable corrective action, and submission of the inspection results to the FAA.

This AD also requires the following actions, which are also specified by the parallel Brazilian emergency airworthiness directive:

- A general visual inspection to determine if Access Panel 312AR is installed, and re-installing the panel.
- A revision to the CDL to remove reference to Access Panel 312AR (thus prohibiting operation without that access panel installed).

Since it was found that immediate corrective action was required, notice and opportunity for prior public comment thereon were impracticable and contrary to the public interest, and good cause existed to make the AD effective immediately by individual notices issued on January 23, 2004, to all known U.S. owners and operators of EMBRAER Model EMB-135 and -145 series airplanes. These conditions still exist, and the AD is hereby published in the Federal Register as an amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13) to make it effective as to all persons.

Difference Between This AD and the Service Bulletin

Although the service bulletin recommends that all inspection results, whether positive or negative, be reported to the manufacturer, this AD requires operators to submit a report to us only if a discrepancy is found.

Differences Between This AD and the Parallel Brazilian Emergency Airworthiness Directive

The Brazilian emergency airworthiness directive specifies that, if any discrepancy is found, both control rods must be replaced. However, this AD requires that only discrepant control rods must be replaced before further flight. We find that replacement of only discrepant control rods will adequately address the unsafe condition.

Also, the Brazilian airworthiness directive specifies that, if Access Panel 312AR is missing, this panel must be installed before the next flight. However, this AD requires that this panel must be installed within 10 flight cycles after the inspection. In developing an appropriate compliance time for this installation, we considered the degree of urgency associated with the subject unsafe condition, the average utilization of the affected fleet, and the availability of necessary parts. In light of all of these factors, we find that a 10-flight-cycle compliance time represents an appropriate interval of time for affected airplanes to continue to operate without compromising safety.

We have coordinated these differences with the DAC, and they concur.

Interim Action

This is considered to be interim action. The inspection report that is required by this AD will enable us, the DAC, and the manufacturer to obtain better insight into the unsafe condition, and eventually to develop further action to address the unsafe condition, if necessary. If further action is identified, we may consider further rulemaking.

Special Flight Permits

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. As amended, part 39 provides for the FAA to add special requirements for operating an airplane to a repair facility to do the work required by an airworthiness directive. For the purposes of this AD, we have determined that a special flight permit would be permitted, but with certain limitations.

Explanation of Editorial Change

In emergency AD 2004-02-51, the definition of a general visual inspection was incorrectly numbered as Note 2. It is actually Note 1. We have revised the number in this document.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of this comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2004-NM-14-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-02-51 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-13484.
Docket 2004-NM-14-AD.

Applicability: All Model EMB-135 and -145 series airplanes, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct failure of the control rods for the aft rudder, which could result in loss of control of the airplane, accomplish the following:

One-Time Inspection and Configuration Deviation List Revision

(a) Within 10 days or 100 flight cycles after the effective date of this AD, whichever is first, accomplish paragraphs (a)(1), (a)(2), and (a)(3) of this AD.

(1) Perform a general visual inspection of the aft rudder control rods to detect any discrepancy (including, but not limited to, incorrect installation, corrosion pitting, cracking, looseness, deformity, or structural damage), and measure the dimension of the aft rudder control rods, per EMBRAER Alert Service Bulletin 145-27-A1-05, dated January 23, 2004.

(2) Perform a general visual inspection to determine if Access Panel 312AR is installed on the airplane.

(3) Revise the Configuration Deviation List (CDL) to remove Access Panel 312AR from the CDL (thus prohibiting operation without that access panel installed). (This may be accomplished by inserting a copy of this AD into the CDL.)

Note 1: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Corrective Actions and Related Investigative Action

(b) If any discrepancy is found during any inspection required by paragraph (a) of this AD: Accomplish paragraphs (b)(1) and (b)(2) of this AD, as applicable.

(1) If any discrepancy is found during the inspection required by paragraph (a)(1) of this AD: Before further flight, replace the affected aft rudder control rod with a new or serviceable control rod, and perform a backlash test (to detect worn rudder bearings) and any applicable related corrective action, per EMBRAER Alert Service Bulletin 145-27-A105, dated January 23, 2004. (If superficial corrosion is found on the rod, but no other discrepancy is found, replacement of the rod is not required.)

(2) If Access Panel 312AR was not installed on the airplane during the inspection required by paragraph (a)(2) of this AD: Within 10 flight cycles after the inspection, install a new or serviceable panel in this location.

Reporting Requirement

(c) Submit a report of discrepancies found during the inspections required by paragraph (a) of this AD, and the test required by paragraph (b)(1) of this AD, to the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; fax (425) 227-1320. Submit the report at the applicable time specified in paragraph (c)(1) or (c)(2) of this AD. The report must include the inspection results, a description of the discrepancies found, the airplane serial number, and the number of landings and flight hours on the airplane. Under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements contained in this AD and has assigned OMB Control Number 2120-0056.

(1) If the inspections/test are done after the effective date of this AD: Submit the report within 7 days after the inspection.

(2) If the inspections/test were accomplished prior to the effective date of this AD: Submit the report within 7 days after the effective date of this AD.

Parts Installation

(d) After the effective date of this AD, no person may install an aft rudder control rod having part number 120-09421-251 (upper control rod) or 120-09421-249 (lower control rod), on any airplane, unless it has been inspected per the requirements of this AD.

Special Flight Permit

(e) Special flight permits with a limitation may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the backlash test required by this AD can be accomplished. The special flight permits would have a limitation that the discrepant aft rudder control rod must have been replaced.

Alternative Methods of Compliance

(f) In accordance with 14 CFR 39.19, the Manager, International Branch, ANM-116, is authorized to approve alternative methods of compliance for this AD.

Incorporation by Reference

(g) The actions shall be done in accordance with EMBRAER Alert Service Bulletin 145-27-A105, dated January 23, 2004. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained

from Empresa Brasileira de Aeronautica S.A. (EMBRAER), P.O. Box 343-CEP 12.225, Sao Jose Dos Campos-SP, Brazil. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

Note 2: The subject of this AD is addressed in Brazilian emergency airworthiness directive 2004-010-07, dated January 23, 2004.

Effective Date

(h) This amendment becomes effective on February 23, 2004 to all persons except those persons to whom it was made immediately effective by emergency AD 2004-02-51, issued January 23, 2004, which contained the requirements of this amendment.

Issued in Renton, Washington, on February 9, 2004.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-3350 Filed 2-17-04; 8:45 am]

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